In re Appln. of Igarashi et al. Application No. 09/669,426

REMARKS

The Present Invention

The present invention is directed to a method for producing a hydrocyanic acid synthesis catalyst and to the hydrocyanic acid synthesis catalyst.

The Pending Claims

Claims 1-10 and 13 are pending. Claims 1-9 and 13 are directed to the method for producing the hydrocyanic acid synthesis catalyst and claim 10 is directed to the hydrocyanic acid synthesis catalyst.

The Final Office Action

Claims 4 and 6-9 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The Office maintained the rejection of claims 1-3, 5 and 10 under 35 U.S.C. § 102(e) as being allegedly anticipated by U.S. 5,817,424 to Ohmi. Claim 1 was objected to because of informalities, specifically, in line 2 "form" and, in line 3, "and having a surface." Reconsideration of this rejection and of the objections is hereby requested.

The Amendments to the Claims

Claim 1 has been amended in the third line to describe the "surface" as --an iron surface--. Claim 2 has been amended to recite that the form is an iron pipe. Claim 3 has been amended to delete the alternative dependence upon claim 2. Claims 4 and 7-8 have been amended to incorporate the subject matter of claim 1 and to eliminate their respective dependence upon claim 1. Claim 6 has been amended to change the dependence from claim 1 to claim 4 and to therefore delete the redundant description of the oxidative atmosphere. Claim 9 has been amended to change the dependence from claim 1 to claim 7. Finally, claim 10 has been amended to recite, as in claim 1, that the catalyst is a selected iron source and form and having an iron surface. No new matter has been added by way of these amendments or by the addition of new claim 13.

Discussion of the Objections to Claim 1

The Examiner's suggested correction as to line 3 regarding changing the "surface" to "iron surface" has been adopted, and claim 1 has been so amended. As to the objection regarding changing "form" to --forming--, it is submitted that the term "form" is correct. As

In re Appln. of Igarashi et al. Application No. 09/669,426

noted in the specification, the "form" or shape of the iron used for producing the catalyst varies according to the way in which the catalyst is used. (Page 3, lines 12-13). Thus, as is set forth in claim 2, the form can be an iron pipe. It is accordingly respectively submitted that the terminology "form" is indeed both correct and appropriate.

Discussion of the Rejection Under 35 U.S.C. § 102(e)

The Office has maintained the rejection of claims 1-3, 5 and 10 under 35 U.S.C. § 102(e) as being anticipated by U.S. 5,817,424 to Ohmi (Ohmi '424). Particularly, after noting that the preamble recites "a method of producing a hydrocyanic acid synthesis catalyst," the Office contends that it is considered that the passive oxide film formed on the steel pipe surface as disclosed by the reference is the catalyst that applicants claim "because both applicants and the reference teach to conduct the process in the same manner." (Paper No. 6, page 3)

First of all, applicants are not claiming a "catalyst" in claims 1-9 and 13. Rather, what is being claimed is a "method of producing a hydrocyanic acid synthesis catalyst" as the Examiner has acknowledged. Accordingly, whether the passive oxide film formed by Ohmi is the same as that obtained using applicants' process or not is immaterial. Anticipation under § 102 requires that each step of the method be disclosed. Here, the method steps being claimed are not disclosed in Ohmi.

Ohmi does not select an iron source and form for the hydrocyanic acid synthesis catalyst as is required in the claims under consideration, e.g. – independent claim 1. Ohmi is concerned with forming a passive oxide film based on chromium oxide, apparently for some semi-conductor applications.

Further, claim 1 and the other claims under consideration require the **sequential** exposure of the iron surface for the form of the catalyst selected to oxidative and reductive atmospheres. The Ohmi process does not sequentially expose any iron surface to oxidative and reductive atmospheres. Ohmi discloses subjecting stainless steel to a heat treatment with a gas containing hydrogen and oxygen **together** at selected concentrations so as to form a passive oxide film based on chromium oxide. Indeed, Ohmi would appear to teach away from carrying out the formation of such a chromium oxide layer by sequential oxidation and reduction reactions. (See Column 1, lines 26-40.) Even further, Ohmi does not disclose carrying out the cycle of exposure to oxidative and reductive atmospheres more than once (as is set forth in claim 3) or carrying out at least 10 cycles (newly added claim 13).

In view of the foregoing, the presently claimed method is not anticipated by Ohmi. Therefore, applicants request that the rejection under § 102 be withdrawn.

In re Appln. of Igarashi et al. Application No. 09/669,426

Conclusion

The Examiner's indication that claims 4 and 6-9 would be allowable if rewritten in independent form is appreciated. This has been effected, and it is thus believed that these claims should be allowed. As to the other remaining claims, it is believed that these are patentable and that the application is in good and proper form for allowance. The Examiner is accordingly respectfully requested to pass this application to issue. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,

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